

REMARKS/ARGUMENTS

This amendment is in Response to the Final Office Action mailed November 14, 2003 and the Advisory Action mailed February 5, 2004. Claim 23 has been amended to include the limitation of a “thermally conductive conformal thermal interface” and to specifically recite a coil adjacent to and outside the process chamber where the thermal control blocks are not thermally coupled to the coil. Also, Claim 33 has been amended to more clearly assert a “conformal thermal interface” and to specifically recite a coil separate from the plasma processing chamber. A related Claim 45 has been added to depend from Claim 33. Claims 1-22, 24-25, 28-31, and 34 now stand canceled without prejudice. Claims 45-49 have also been added. Therefore, Claims 23, 26, 27, 32, 33, and 35-49 remain pending in this application. The applicants respectfully submit that this amendment places the claims in condition for allowance. Accordingly, the applicants respectfully request entry of this amendment and request reconsideration of the remaining claims.

Rejections Under 35 U.S.C. § 103:

All pending claims stand rejected as being unpatentable over Collins, et al. EP 0 837 489 A2 (hereinafter *Collins EP*) in view of Collins USPN 6,572,732 (hereinafter *Collins* ‘732) under 35 U.S.C. § 103.

Claims 23 and 33 been amended to recite a coil adjacent to and outside of the plasma processing chamber and a thermally conductive conformal interface which is in contact with a surface of the thermal control block and a surface of the plasma processing chamber and where the thermal control blocks are not thermally coupled to the coil. Claim 37 has been amended to recite the conformal thermal interface. The coil 314 adjacent to the process chamber 304 is shown in FIG. 3. As shown in FIG. 3, the coil 314 is not thermally coupled to the thermal control blocks 302, but is instead spaced apart. Page 8, line 23, to page 9, line 9, states that thermal coupling is provided between the thermal control block 206 and the surface of the process chamber 202 by the conformal thermal interface 204, as shown in FIG. 2A.

The cited references do not disclose a conformal thermal interface in physical contact with the thermal block and the process chamber. Page 9, lines 3-4, of the present application

states that such conformal thermal interface provides high thermal coupling between the surface and the heating block.

In addition, the Examiner in the Advisory Action on page 2 and in the Final Rejection on page 4 interprets elements 147, 400, 110 as the roof of the process chamber. Col. 21, lines 55-65 states that element 147 is an antenna holder for antenna 145, shown as being within the antenna holder 147. Such an antenna 145 is not adjacent to and outside the roof, as recited in claim 23 and 33, as amended.

In addition, claim 33, as amended, further recites a thermal break between the cooling element and the heating element.

For at least these reasons, claim 23, 33 and 37 are not made obvious by the cited references.

Dependent claims 26, 27, 32, 35, 36, and 38-49 are also patentably distinct from the cited references for at least the same reasons as those recited above for the independent claims, upon which they ultimately depend. These dependent claims recite additional limitations that further distinguish these dependent claims from the cited references. For example, claim 27, as amended, recites that the thermal blocks are placed against a first section of the roof portion and that the coil is placed adjacent to a second section of the roof portion different than that first roof portion. This is not disclosed by the cited references. In addition, claims 44, 46, and 48 recite notches in the heating block and notches in the cooling element. The cited references do not make obvious notches in both the heating block and cooling element. In addition, regarding claim 45, the cited art does not teach the advantageous combination of a conformal thermal interface having high thermal conductivity and a thermal break having a low thermal conductivity. In addition, new claims 47 and 49 recite that the notches in the heater element are aligned with notches in the cooling element. For at least these reasons, claims 26, 27, 32, 35, 36, and 38-49 are not unpatentable over the cited references.

Applicants believe that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe

that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,

BEYER WEAVER & THOMAS, LLP

A handwritten signature in black ink, appearing to read "Michael Lee", with a long horizontal flourish extending to the right.

Michael Lee

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